

and Mr. Lydekker display also a masterly command of their subjects. In short, the work thoroughly maintains the high standard of Parts I and II.

In concluding the present notice it may be not out of place to transcribe a few remarks on special points of interest to readers of 'The Auk.' Thus Dr. Gadow, in his article 'Muscular System' makes the following comment: "The taxonomic value of muscles is theoretically great, but very limited when put to practical test. Most of them cannot be understood unless the whole group to which they belong be examined, and the study of their correlations is a very complicated problem. To pick out a few of the most variable muscles of the leg, and to arrange birds in accordance with their mere presence or absence, without regard to intermediate stages, is an easy but scarcely serious mode of investigation, and there is no wonder that systems built on such simple notions broke down. There is no reason why a dozen different kinds of birds should not have lost the same muscle at different times and independently of each other, and that other kinds may not lose it in future if its function be no longer required or can be fulfilled by some other combination. . . It is certain that similar muscular combinations in two or more birds do not necessarily mean relationship, while on the contrary similar requirements are often met in similar ways. . . ."—J. A. A.

Stone's Birds of Eastern Pennsylvania and New Jersey.¹—Mr. Stone, with the assistance of his fellow-members of the Delaware Valley Ornithological Club, has presented us with a faunal list which, except in unimportant details, may well stand as a model for works of this nature.

Chapter I, on 'The Geographical Distribution of Birds,' opens with remarks on the 'General Laws of Geographical Distribution,' and is followed by a detailed consideration of the 'Faunal Areas of Eastern Pennsylvania and New Jersey—their Physical Features and Characteristic Birds,' the value of which is much enhanced by a colored map.

Chapter II, on 'Bird Migration,' treats of the subject from both a general and local standpoint and should be read by every one interested in the study of this branch of ornithology. This chapter concludes with a nominal list of the 'Birds found within Ten Miles of Philadelphia,' some 260 in number, grouped under the following, in the main, well-chosen headings: I. Resident Birds. II. Species which are of rare or irregular occurrence in winter, but common summer residents.

¹ The | Birds of Eastern Pennsylvania | and | New Jersey | With Introductory Chapters on | Geographical Distribution and Migration | Prepared under the direction of the | Delaware Valley Ornithological Club | By | Witmer Stone | Conservator Ornithological Section Academy of Natural Sciences of Philadelphia | — | Philadelphia | Delaware Valley Ornithological Club | 1894.—8vo., pp. vii 185, frontispiece and two maps.

III. Common Summer Residents. IV. Summer Residents which are rare or local (many are common as transients). V. Winter Visitants of regular occurrence. VI. Winter Visitants of irregular occurrence or rare. VII. Species which occur occasionally in winter, but are mainly transients. VIII. Common Transients. IX. Rare or irregular Transients. X. Rare Stragglers.

Part II, an 'Annotated List of the Birds of Eastern Pennsylvania and New Jersey,' occupies pp. 35-152 and includes 352 species, or, subtracting 3 species¹ now extinct in the region under consideration and 3 hybrids,² we have a total of 346 species known from the district. To this may be added *Anas crecca*, recorded by Dr. C. C. Abbott (Geology of New Jersey), which, it is true, may have been omitted intentionally, though other records from the same doubtful source are given a place.

The annotations under each species consist of a brief and somewhat too general statement of its 'Breeding Range' and 'Winter Distribution,' given in separate paragraphs—an admirable plan—and remarks on the bird's manner of occurrence, which show that Mr. Stone has his subject well in hand and knows what to say and what to leave unsaid.

The total of 346 species tells us that few additional birds are to be expected from this district and the most promising fields for future workers lie in more clearly determining the faunal affinities of the mountainous parts of Eastern Pennsylvania, and especially the standing of the sea-birds of the Jersey coast, about which comparatively little is known. Records of *Procellaria pelagica* and *Phalacrocorax carbo* require confirmation, and it is probable additional observation will show that some birds, e. g., *Microfalama himantopus* and *Ereunetes occidentalis*, are not so rare as Mr. Stone believes.

The bibliography, which concludes this excellent list, is proof that Mr. Stone is thoroughly familiar with the literature relating to the birds of Pennsylvania and New Jersey. Indeed, few records of importance seem to have escaped him. He does not, however, mention Mr. Lawrence's record of the European Woodcock from Shrewsbury, N. J. (Catalogue of Birds, 1866, p. 279); and in Mr. Thurber's 'List of Birds of Morris County, New Jersey' (True Democratic Banner, 1887) he will find additional records of such rare birds as *Elanoides forficatus*, *Accipiter atricapillus*, *Scotiaptex cinerea*, *Ampelis garrulus*, etc., and other notes of interest.

The work is well and tastefully printed, typographical errors are rare, and we congratulate Mr. Stone and his associates on having performed their task in a manner which demands the highest commendation.—
F. M. C.

¹ *Camptolaimus labradorius*, *Tympanuchus cupido*, and *Conurus carolinensis*.

² *Colaptes auratus* + *C. cafer*, *Helminthophila leucobronchialis*, and *H. lawrencei*.